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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,575	10/19/2000	Djuphammar O. Hakan	253/099	8163
24112	7590	06/01/2005	EXAMINER	
COATS & BENNETT, PLLC P O BOX 5 RALEIGH, NC 27602			JUNTIMA, NITTAYA	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/693,575

Applicant(s)

HAKAN, DJUPHAMMAR O.

Examiner

Nittaya Juntima

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,12-25,29-33,36-50,53-56,59 and 60 is/are rejected.
- 7) ☒ Claim(s) 3-6,9-11,26-28,34,35,51,52,57 and 58 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 11/17/2004.
2. The objections to the claims and oath/declaration, and the rejection under 35 U.S.C. 112, second paragraph are withdrawn in view of applicant's amendment.
3. Claims 3-6, 9-11, 26-28, 34-35, 51-52, and 57-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claims 1, 7, 12, 14-16, 18-24, 29-32, 36-39, 41-43, 45-50, 53-56, and 59-60 are rejected under 35 U.S.C. 102(b).
5. Claims 2, 8, 13, 17, 25, 33, 40, and 44 are rejected under 35 U.S.C. 103(a) are rejected under 35 U.S.C. 103(a).

### ***Claim Objections***

6. Claims 14, 29, and 41 are objected to because of the following informalities:
  - in claim 14, ll 6, "second" should be deleted to avoid lack of antecedent basis problem;
  - in claim 41, ll 5, "second" should be deleted to avoid lack of antecedent basis problem;
  - in claim 29, ll 1, "an" and "communications" should be changed to "the" and "communications," respectively to refer back "all-service communications" in claim 24, ll 2, "includes" should be changed to "include."

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1, 7, 12, 14-16, 18-24, 29-32, 36-39, 41-43, 45-50, 53-56, and 59-60** are rejected under 35 U.S.C. 102(b) as being anticipated by Willars et al. (USPN 5,533,014).

Regarding **claims 1, 24, 30, and 31**, as shown in Fig. 2B, Willars et al. teach tuning *the terminal* (MS in Fig. 1) to *a HDR/best-effort carrier* (a HDR/best-effort carrier is not defined, reads on the first frequency in which the coded info. signal of the compressed mode is transmitted, col. 5, ll 5-11 and 18-23), establishing *a packet data communication* (an informational data stream) over the HDR/best-effort carrier (a data stream must be established in order for the coded info signal to be transmitted, col. 5, ll 12-23), periodically tuning the terminal to *a 1xRTT/all-service carrier* (not defined, reads on another frequency) for a limited time (idle part) in order to check for *incoming 1xRTT/all-service communications* (signals transmitted on another frequency during idle part) (col. 5, ll 24-35).

Regarding **claims 7, 32, 37, and 38**, as shown in Fig. 2B, Willars et al. teach tuning *the terminal* (MS in Fig. 1) to *a HDR/best-effort carrier* (a HDR/best-effort carrier is not defined, reads on the first frequency in which the coded info. signal of the compressed mode is transmitted, col. 5, ll 18-23), establishing *a packet data communication* (an informational data stream) over the HDR/best-effort carrier (a data stream must be established in order for the coded info signal to be transmitted, col. 5, ll 12-23), while the packet data communication is in

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progress, tuning the terminal to *a 1xRTT/all-service carrier* (not defined, reads on another frequency) (the MS switches to another frequency during the idle part while the info in Fig. 2B is not terminated) (col. 5, ll 24-30), and (d) establishing *1xRTT/all-service communication* (a new link with another frequency) on the 1xRTT/all-service carrier (col. 5, ll 56-66).

Regarding **claims 12, 39, and 42**, as shown in Fig. 2B, Willars et al. teach periodically scanning for *a HDR/best-effort carrier* (not defined, reads on another frequency) (the MS must scan for another frequency when switches to another frequency periodically for MAHO measurements and evaluation, col. 5, ll 24-30), tuning *a receiver* (MS in Fig. 1 must have a receiver) to a *1xRTT/all-service carrier* (not defined, reads on the first frequency in which the coded info. signal of the compressed mode is transmitted, col. 5, ll 18-23), establishing *a packet data communication* (an informational data stream) over the 1xRTT/all-service carrier after tuning the receiver to the 1xRTT/all-service carrier (a data stream must be established after tuning to the first frequency in order for the coded info signal to be transmitted, col. 5, ll 12-23), periodically scanning for *a HDR/best-effort carrier* (not defined, reads on another frequency) once the terminal is tuned to the 1xRTT carrier (the MS must scan for another frequency when switches to the other frequency periodically for MAHO measurements and evaluation, col. 5, ll 24-30), if a HDR/best-effort carrier is available, tuning the terminal to the HDR/best-effort carrier (handover is performed when the other frequency is available and the measurements justified, col. 5, ll 24-30 and 57-66), and establishing the packet data communication on the HDR/best-effort carrier (col. 5, ll 57-66).

Regarding **claims 14 and 41**, Willars et al. teach sending *a 1xRTT/all-service packet hand-over request* (reads on an inherent request in MAHO method) from the terminal to transfer

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the packet data communication from the 1xRTT/all-service carrier to the HDR/best-effort carrier (col. 5, ll 36-42), and handing the packet data communication over to the HDR/best-effort carrier from the 1xRTT/all-service carrier (col. 5, ll 56-col. 6, ll 1-5).

Regarding **claim 15**, as shown in Fig. 1, Willars et al. teach *a transceiver* (a transceiver in the MS for receiving/transmitting data) to selectively tune to *a HDR/best-effort carrier* (not defined, reads on the first frequency in which the coded info. signal of the compressed mode is transmitted) or to *a 1xRTT/all-service carrier* (not defined, reads on another frequency) (col. 5, ll 18-23, 39-43, and 57-66), *a processor* (an inherent processor must be included to control the transceiver) configured to tune the transceiver to *the HDR/best-effort carrier* to establishing *packet data communications* (an information data stream) and to tune to *the 1xRTT/all-service carrier* for establishing *1xRTT/all-service communications* (not defined, reads on an information data stream) (col. 5, ll 12-30 and 57-66).

Regarding **claims 16, 43, 48, and 49**, Willars et al. further teach periodically tuning the transceiver to the *1xRTT carrier/all-service* (not defined, reads on the other frequency) to check for *incoming 1xRTT/all-service communications* (signals transmitted on another frequency during idle part) while a packet data communication is occurring over *the HDR/best-effort carrier* (MS switches to another frequency during idle part while the communication on the first frequency is not terminated, col. 5, ll 18-30), and establishing *a 1xRTT/all-service communication* (a new link with another frequency) over the 1xRTT/all-service carrier when an incoming 1xRTT/all-service communication is detected (col. 5, ll 56-66).

Regarding **claims 18 and 45**, Willars et al teach tuning to a 1xRTT/all-service carrier, while a packet data communication is taking place over a HDR/best-effort carrier (switching to

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another frequency while information on the first frequency is not terminated as shown in Fig. 2B, col. 5, ll 18-30), and establish a 1xRTT/all-service communication over the 1xRTT/all-service carrier (a new link is established over the other frequency, col. 5, ll 57-66).

Regarding **claims 19, 22, 46, and 54**, Willars et al. teach initiating *a 1xRTT/all-service packet hand-over request* (reads on an inherent request in MAHO method) from the terminal to transfer the packet data communication from the HDR/best-effort carrier to the 1xRTT/all-service carrier (col. 5, ll 36-42).

Regarding **claims 20, 29, 36, and 47**, Willars et al. teach that the 1xRTT/all-service communication/all-service communications include(s) *a broadcast information communication* (col. 5, ll 59-61).

Regarding **claims 21, 53, 59, and 60**, Willars et al. teach a *1xRTT/all-service carrier* (not defined, reads on another frequency, col. 5, ll 24-35 and 57-66) configured to carry *1xRTT/all-service communications* (not defined, reads on broadcast communications from a new base station, col. 5, ll 57-66) and *packet data communications* (the coded info. signal/data stream of the compressed mode performed during a call handover, col. 5, ll 12-23 and 57-66), a *HDR/best-effort carrier* (not defined, reads on the first frequency in which the coded info. signal of the compressed mode is transmitted, col. 5, ll 18-23) configured to carry *packet data communications* (an informational data stream, col. 5, ll 12-23), and *a plurality of terminals* (MS in Fig. 1, col. 4, ll 55-63) configured to tune to the HDR/best-effort carrier (the first frequency) for establishing packet data communications and to tune to the 1xRTT carrier (another frequency) for establishing packet data communication (col. 5, ll 24-30 and 57-66).

Regarding **claims 23 and 55**, since a decision on call handover to a new base station is

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Made (col. 5, ll 39-46, 56-66, see also col. 3, ll 32-41), it is inherent that each hand-over request will contain information about a target base station controller associated with the other frequency that is the target of the hand-over.

Regarding **claims 50 and 56**, Willars et al. teach that *the all-service carrier* (not defined, reads on another frequency, col. 5, ll 24-35 and 57-66) supports *real-time* (broadcast from a new base station for handover which must be received by the MS in real time, col. 5, ll 57-66) and *non-real-time* (transmission of coded info. signal of the compressed mode performed during call handover, col. 5, ll 57-66) services, and *the best-effort carrier* (not defined, reads on the first frequency in which the coded info. signal of the compressed mode is transmitted, col. 5, ll 18-23) supports only *non-real-time services* (transmission of coded info. signal of the compressed mode, col. 5, ll 18-23).

### *Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 2, 8, 13, 17, 25, 33, 40, and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Willars et al. (USPN 5,533,014).

Regarding **claims 2, 8, 33, and 25**, as shown in Figs. 1 and 2B, Willars et al. teach *establishing a 1xRTT/all-service communication* (a new link with another frequency) over the



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1xRTT/all-service carrier (another frequency) when an incoming 1xRTT/all-service communication is detected (col. 5, ll 55-66).

Willars et al. fail to teach tuning the terminal back to the HDR/best-effort carrier when the 1xRTT/all-service communication is terminated in order to complete the packet data communication.

However, Willars et al. further teach performing a handover to improve call quality as justified by a down-link measurements and evaluation (col. 5, ll 36-45, 57-61 and col. 6, ll 46-54), and Fig. 2B shows two idle parts where measurements on other carrier frequencies are performed and the compressed mode transmission continues after each idle part. Therefore, it would have been obvious to one skilled in the art to modify the teaching of Willars et al. such that tuning the terminal back to the HDR/best-effort carrier when the 1xRTT/all-service communication is terminated (e.g. handover) in order to complete the packet data communication would be included. The suggestion/motivation to do so would have been to improve the call quality of a future call by tuning back the previous frequency after completing a communication on the other frequency if the down-link measurements and evaluation justifies the handover.

Regarding **claims 13 and 40**, Willars et al. teach a make-before-break handover method (col. 5, ll 57-col. 6, ll 1-5), but fail to teach that the packet data communication on the 1xRTT/all-service carrier is terminated prior to tuning the terminal to the HDR/best-effort carrier.

However, it is well known in the art that alternative to the make-before-break handover

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method is a break-before-make handover method. Therefore, it would have been obvious to one skilled in the art to modify the teaching of Willars et al. to terminate the packet data communication on the 1xRTT/all-service carrier prior to tuning the terminal to the HDR/best-effort carrier as recited in the claim. The suggestion/motivation to do so would have been to provide a break-before-make handover method as an alternative option for system that does not support make-before-break handover method.

Regarding **claims 17 and 44**, Willars et al. fail to teach tuning to a 1xRTT/all-service when HDR/best-effort carriers are unavailable and to periodically scan for HDR/best-effort carriers until one is available, and tuning to a HDR/best-effort carrier when one is available.

However, Willars et al. teach scanning to other frequency periodically (scanning must be included when switching to other frequency is performed, col. 5, ll 24-30 and 36-39) and it is well known for a mobile station to roam into a new location where some frequency may not be available and that some frequency is strongest in some particular location. Therefore, it would have been obvious to one skilled in the art to modify the teaching of Willars et al. such that the processor would be configured to tune to a 1xRTT/all-service when HDR/best-effort carriers are unavailable and to periodically scan for HDR/best-effort carriers until one is available, and wherein the processor would be configured to tune to the a HDR/best-effort carrier when one is available. The suggestion/motivation to do so would have been to enable the mobile station to switch other frequency when it roams outside of the location served by the first frequency and to switch to the first frequency when the mobile station roams back into the location where the first frequency is strongest.

***Response to Arguments***

11. Applicant's arguments filed 11/17/2004 have been fully considered but they are not persuasive.

A. In the remarks regarding claim 1, the applicant argues that Willars fails anticipate claim 1 under §102(b) because Willars only teaches switching frequencies using the same air interface, not tuning between the HDR carrier and the 1xRTT carrier of two completely different air interfaces as claimed.

In response, as shown in Fig. 2B, Willars clearly teaching the claim elements as recited in claim 1: tuning *the terminal* (MS in Fig. 1) to *a HDR carrier* (a HDR carrier is not defined, reads on the first frequency in which the coded info. signal of the compressed mode is transmitted, col. 5, ll 5-11 and 18-23), establishing a packet data communication (an informational data stream) over the HDR/best-effort carrier (a data stream must be established in order for the coded info signal to be transmitted, col. 5, ll 12-23), periodically tuning the terminal to *a 1xRTT carrier* (not defined, reads on another frequency) for a limited time (idle part) in order to check for *incoming 1xRTT communications* (signals transmitted on another frequency during idle part) (col. 5, ll 24-35). There is no structural or functional difference between the first frequency and another frequency of Willars and the HDR and 1xRTT carriers as recited in claim 1. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the HDR carrier and the 1xRTT carrier are carriers in two completely different air interfaces, HDR is spectrally optimized for very-high speed wireless packet data communications, while 1xRTT is optimized for slower-speed circuit switched services) are not recited in the rejected claim(s).

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Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the rejection of claim 1 and its dependent claim 2 is maintained.

B. For the same reasons stated above, the rejection of independent claims 7, 12, 15, 24, 32, 39, and 43 under §102(b) and each of their respective dependent claims is also maintained.

### *Conclusion*

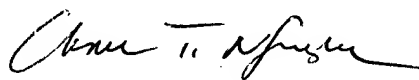
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima  
May 31, 2005

*NJ*



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